

# EUROPEAN PATENT OFFICE

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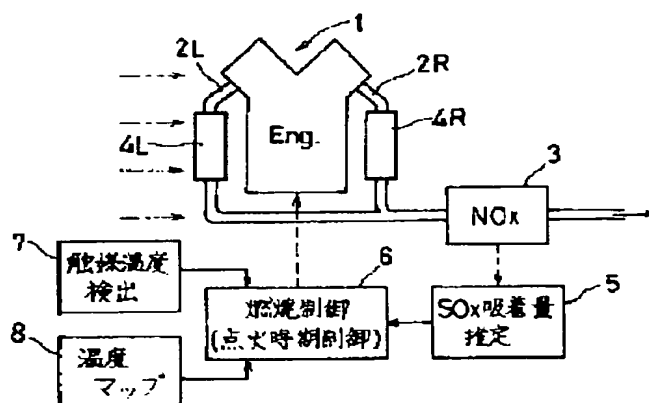
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TITLE : EXHAUST EMISSION CONTROL  
DEVICE FOR INTERNAL COMBUSTION  
ENGINE



**ABSTRACT :** PROBLEM TO BE SOLVED: To regenerate a NOx catalyst efficiently by individually controlling an operation of each cylinder group when a deterioration of the NOx catalyst is detected, and releasing sulfur component adsorbed on the NOx catalyst, in a device formed in such a constitution that the NOx catalyst is arranged on a downstream side of an aggregated part formed by aggregating each exhaust passage into one.

**SOLUTION:** Exhaust passage 2L, 2R led from each bank of a V-type engine 1 are aggregated into one, and led from an aggregating part to a tail pipe. In such an exhaust system, a NOx catalyst 3 is arranged on a downstream side of the aggregating part, and upstream side catalysts 4L, 4R are arranged in the exhaust passages 2L, 2R. In this case, in a combustion control unit 6, a combustion of the V-type engine 1 is controlled when deterioration of the NOx catalyst 3 is detected in a SOx adsorption amount estimating unit 5, an exhaust air-fuel ratio is set in a rich condition. Simultaneously, an ignition timing is phase lag-controlled so as to improve a catalyst temperature. Reducing action is promoted in the NOx catalyst 3, sulfur component is released from the NOx catalyst 3, and thereby, the NOx catalyst 3 is regenerated.

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